ABSTRAK

Penelitian ini bertujuan untuk mengembangkan kreativitas mahasiswa dalam mendesain praktikum berbasis inkuiri pada tema banjir. Metode penelitian yang digunakan adalah *mixed method* dengan desain eksploratoris sekuensial, terdiri dari tahap studi pendahuluan, implementasi dan evaluasi. Subjek penelitian meliputi mahasiswa, guru serta dosen. Data studi pendahuluan menunjukkan bahwa pelaksanaan praktikum (khusunya pada materi terkait tema banjir) baik di SMA maupun LPTK dipandu menggunakan lembar kerja *cookbook* yang berisi tuntunan dalam bentuk instruksi langsung. Dampak dari pelaksanaan praktikum seperti demikian terhadap kreativitas mahasiswa adalah mahasiswa belum menunjukkan kreativitas dalam mengajukan cara penyelesaian permasalahan banjir melalui kegiatan praktikum serta merancang LKS praktikum berbasis inkuiri. Berpijak pada berbagai permasalahan tersebut, maka kegiatan pemodelan dirancang dengan berorientasi pada pengembangan kreativitas dalam tiga ranah hasil belajar, memuat materi ajar berbasis kontekstual, dan menyajikan aktivitas *do-modify-do* yang mencakup seluruh tahapan inkuiri. Hasil penelitian pada tahap implementasi menunjukkan bahwa kreativitas mahasiswa dalam mendesain LKS berada pada tahap memodifikasi prosedur *cookbook* dari segi jenis bahan, jumlah bahan serta alat percobaan, dengan karakteristik LKS merupakan LKS praktikum berbasis inkuiri terbimbing yang masih perlu penyempurnaan terutama dalam komponen fenomena. Adanya kreativitas yang teridentifikasi dalam produk merupakan representasi dari peningkatan keterampilan berpikir kreatif dengan kategori sedang (0,53), peningkatan penguasaan konsep dengan kategori sedang (0,41), pengembangan sikap kreatif yang ditunjukkan dengan aktivitas bertanya serta tindakan kreatif berupa aktivitas *do-modify-do* yang dilakukan dengan baik dalam kegiatan pemodelan. Adapun kualitas LKS yang dikembangkan mahasiswa sangat layak untuk diterapkan dalam praktikum berbasis inkuiri di SMA berdasarkan penilaian kebenaran isi serta keterbacaan komponen LKS, dengan perolehan persentase penilaian: larutan elektrolit dan nonelektrolit (91,67%), Ksp (100), asam basa (91,67) dan persentase rata-rata 9 LKS koloid (94,44). Sementara tanggapan mahasiswa terhadap kegiatan pemodelan yang dirancang tergolong baik (73,06%) dan tanggapan tersebut mempengaruhi kreativitas mahasiswa dalam mendesain praktikum inkuiri.

Kata kunci: kreativitas, mahasiswa calon guru kimia, kegiatan pemodelan praktikum berbasis inkuiri tema banjir.

ABSTRACT

This research aims at developing college students'creativity in designing inquiry based laboratory work with flood as its topic. The method used is mixed-method with exploratory-sequential design and it contains of introduction, implementation, and evaluation. The subject of this research are college students, teachers, and lecturers. The introductory data shows that the implementation of laboratory work (especially with topic which relates to flood) which was conducted in both senior high school and university, was guided by using cookbook worksheet that contains of guidance in direct instruction forms. The impact was the college student had not shown their creativity in proposing the solution of flood problem through laboratory work and developing inquiry based student's worksheet. Regarding to this problem, a modelling activity was designed as developing creativity in three aspects of study result. It includes contextual based material and presents do-modify-do activity which accommodates all steps of inquiry. This implementation reveals that the college students' creativity in designing student's worksheet was still in the step of modifying the cookbook procedure in terms of material, the amount of material, and experiment utensils based on student's worksheet characteristics is guided inquiry. The creativity which is identified in products represents the improvement of creative thinking in medium category (0.53), the mastery concepts in medium category (0.41) and the development of creativity which was shown by inquiry activity and creative action such as do-modify-do activity which was conducted precisely in model activity. The quality of the student's worksheet which was developed the college students is suitable to be applied in inquiry based laboratory work in senior high schools regarding to assessment of correction and also readability of the worksheet's components with the percentage as follows: electrolyte and nonelectrolyte (91,67%), solubility and solubility constant product (100), acid base (91,67), and the average percentage for colloid worksheet is 9 (94,99). In addition, the college students' response toward the model activity is considered as good (73,06%) and it influences their creativity in designing inquiry laboratory work.

Key words: creativity, chemistry student-teachers, a modelling activity inquiry based laboratory work in flood topic